

In the Claims:

This listing of claims shall replace all prior versions and listings of claims.

Claim 1 (original): An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

(a) a polynucleotide fragment of SEQ ID NO:X or a polynucleotide fragment of the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;

(b) a polynucleotide encoding a polypeptide fragment of SEQ ID NO:Y or a polypeptide fragment encoded by the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;

(c) a polynucleotide encoding a polypeptide domain of SEQ ID NO:Y or a polypeptide domain encoded by the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;

(d) a polynucleotide encoding a polypeptide epitope of SEQ ID NO:Y or a polypeptide epitope encoded by the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X;

(e) a polynucleotide encoding a polypeptide of SEQ ID NO:Y or the cDNA sequence included in ATCC Deposit No:Z, which is hybridizable to SEQ ID NO:X, having biological activity;

(f) a polynucleotide which is a variant of SEQ ID NO:X;

(g) a polynucleotide which is an allelic variant of SEQ ID NO:X;

(h) a polynucleotide which encodes a species homologue of the SEQ ID NO:Y;

(i) a polynucleotide capable of hybridizing under stringent conditions to any one of the polynucleotides specified in (a)-(h), wherein said polynucleotide does not hybridize under stringent conditions to a nucleic acid molecule having a nucleotide sequence of only A residues or of only T residues.

Claims 2-7 (canceled)

Claim 8 (original): A method of making a recombinant host cell comprising the isolated nucleic acid molecule of claim 1.

Claims 9-12 (canceled)

Claim 13 (original): An isolated antibody that binds specifically to the isolated polypeptide of claim 11.

Claim 14 (canceled)

Claim 15 (original): A method of making an isolated polypeptide comprising:

(a) culturing the recombinant host cell of claim 14 under conditions such that said polypeptide is expressed; and

(b) recovering said polypeptide.

Claim 16 (canceled)

Claim 17 (original): A method for preventing, treating, or ameliorating a medical condition, comprising administering to a mammalian subject a therapeutically effective amount of the polypeptide of claim 11.

Claim 18 (original): A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or absence of a mutation in the polynucleotide of claim 1; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or absence of said mutation.

Claim 19 (original): A method of diagnosing a pathological condition or a susceptibility to a pathological condition in a subject comprising:

(a) determining the presence or amount of expression of the polypeptide of claim 11 in a biological sample; and

(b) diagnosing a pathological condition or a susceptibility to a pathological condition based on the presence or amount of expression of the polypeptide.

Claim 20 (original): A method for identifying a binding partner to the polypeptide of claim 11 comprising:

(a) contacting the polypeptide of claim 11 with a binding partner; and

(b) determining whether the binding partner effects an activity of the polypeptide.

Claim 21 (canceled)

Claim 22 (original): A method of identifying an activity in a biological assay, wherein the method comprises:

- (a) expressing SEQ ID NO:X in a cell;
- (b) isolating the supernatant;
- (c) detecting an activity in a biological assay; and
- (d) identifying the protein in the supernatant having the activity.

Claim 23 (canceled)

Claim 24: (new): An isolated protein comprising amino acid residues 29 to 453 of SEQ ID NO:3177.

Claim 25: (new): The isolated protein of claim 24 which comprises amino acid residues 2 to 453 of SEQ ID NO:3177.

Claim 26: (new): The isolated protein of claim 24 which comprises amino acid residues 1 to 453 of SEQ ID NO:3177.

Claim 27: (new): The protein of claim 24 which further comprises a heterologous polypeptide sequence.

Claim 28: (new): A composition comprising the protein of claim 24 and a pharmaceutically acceptable carrier.

Claim 29: (new): An isolated protein produced by the method comprising:

- (a) expressing the protein of claim 24 by a cell; and
- (b) recovering said protein.

Claim 30: (new): An isolated protein comprising the amino acid sequence of the secreted portion of the polypeptide encoded by the HDPKC55 cDNA contained in ATCC Deposit No. 203960.

Claim 31: (new): The isolated protein of claim 30 which comprises the amino acid sequence of the complete polypeptide encoded by the HDPKC55 cDNA contained in ATCC Deposit No. 203960, excepting the N-terminal methionine.

- Claim 32: (new): The isolated protein of claim 30 which comprises the amino acid sequence of the complete polypeptide encoded by the HDPKC55 cDNA contained in ATCC Deposit No. 203960.
- Claim 33: (new): The protein of claim 30 which further comprises a heterologous polypeptide sequence.
- Claim 34: (new): A composition comprising the protein of claim 30 and a pharmaceutically acceptable carrier.
- Claim 35: (new): An isolated protein produced by the method comprising:
(a) expressing the protein of claim 30 by a cell; and
(b) recovering said protein.
- Claim 36: (new): An isolated protein comprising a polypeptide sequence which is at least 90% identical to amino acid residues 1 to 453 of SEQ ID NO:3177.
- Claim 37: (new): The isolated protein of claim 36, wherein said polypeptide sequence is at least 95% identical to amino acid residues 1 to 453 of SEQ ID NO:3177.
- Claim 38: (new): The protein of claim 36 which further comprises a heterologous polypeptide sequence.
- Claim 39: (new): A composition comprising the protein of claim 36 and a pharmaceutically acceptable carrier.
- Claim 40: (new): An isolated protein produced by the method comprising:
(a) expressing the protein of claim 36 by a cell; and
(b) recovering said protein.
- Claim 41: (new): An isolated protein comprising a polypeptide sequence which is at least 90% identical to the complete polypeptide encoded by the HDPKC55 cDNA contained in ATCC Deposit No. 203960.

Claim 42: (new): The isolated protein of claim 41, wherein said polypeptide sequence is at least 95% identical to the complete polypeptide encoded by the HDPKC55 cDNA contained in ATCC Deposit No. 203960.

Claim 43: (new): The protein of claim 41 which further comprises a heterologous polypeptide sequence.

Claim 44: (new): A composition comprising the protein of claim 41 and a pharmaceutically acceptable carrier.

Claim 45: (new): An isolated protein produced by the method comprising:
(a) expressing the protein of claim 41 by a cell; and
(b) recovering said protein.

Claim 46: (new): An isolated protein consisting of at least 30 contiguous amino acid residues of amino acid residues 29 to 453 of SEQ ID NO:3177.

Claim 47: (new): The isolated protein of claim 46 which consists of at least 50 contiguous amino acid residues of amino acid residues 29 to 453 of SEQ ID NO:3177.

Claim 48: (new): The protein of claim 46 which further comprises a heterologous polypeptide sequence.

Claim 49: (new): A composition comprising the protein of claim 46 and a pharmaceutically acceptable carrier.

Claim 50: (new): An isolated protein produced by the method comprising:
(a) expressing the protein of claim 46 by a cell; and
(b) recovering said protein.

Claim 51: (new): An isolated protein consisting of at least 30 contiguous amino acid residues of the secreted portion of the polypeptide encoded by the HDPKC55 cDNA contained in ATCC Deposit No. 203960.

Claim 52: (new): The isolated protein of claim 51 which consists of at least 50 contiguous amino acid residues of the secreted portion of the polypeptide encoded by the HDPKC55 cDNA contained in ATCC Deposit No. 203960.

Claim 53: (new): The protein of claim 51 which further comprises a heterologous polypeptide sequence.

Claim 54: (new): A composition comprising the protein of claim 51 and pharmaceutically acceptable carrier.

Claim 55: (new): An isolated protein produced by the method comprising:

- (a) expressing the protein of claim 51 by a cell; and
- (b) recovering said protein.